

Title (en)
RAPID PROTOTYPED TRANSFER TRAY FOR ORTHODONTIC APPLIANCES

Title (de)
SCHNELL PROTOTYPISIERTE TRANSFERSCHALE FÜR ORTHODONTISCHE GERÄTE

Title (fr)
PLATEAU DE TRANSFERT PROTOTYPÉ RAPIDE POUR APPAREILS ORTHODONTIQUES

Publication
EP 3649981 A1 20200513 (EN)

Application
EP 19213570 A 20090616

Priority

- US 7583108 P 20080626
- EP 09770765 A 20090616
- US 2009047430 W 20090616

Abstract (en)

The present invention relates to a transfer tray for use in bonding of a plurality of orthodontic appliances, each having a base for bonding to a tooth surface and a body extending outwardly from the base, the tray comprising a plurality of receptacles for the plurality of orthodontic appliances, each of the plurality of receptacles having a configuration matching a portion of the appliance body to releasably retain the appliance, the plurality of orthodontic appliances releasably retained in the plurality of receptacles, and a tray body extending continuously across the plurality of receptacles and having a gingival edge, wherein the gingival edge intersects each of the plurality of receptacles such that a first portion of each appliance body extends below the gingival edge and is not enclosed by any portion of the tray body for each appliance releasably retained in each receptacle, and wherein each receptacle and the tray body cooperate to cover all exterior surfaces of each appliance body opposite the base and located in an occlusal direction from the gingival edge for each appliance releasably retained in each receptacle, wherein prior to placement of the appliances on the teeth while the appliance are retained in the receptacles of the tray body, positions of the receptacles in the tray body correspond with positions of teeth to receive the appliances retained in the receptacles.

IPC 8 full level
A61C 7/14 (2006.01); **A61C 7/00** (2006.01); **B29C 64/00** (2017.01); **B29C 64/386** (2017.01); **B33Y 10/00** (2015.01); **B33Y 50/00** (2015.01); **B33Y 80/00** (2015.01)

CPC (source: EP US)
A61C 7/002 (2013.01 - EP US); **A61C 7/146** (2013.01 - EP US); **B29C 64/00** (2017.07 - EP US); **B29C 64/188** (2017.07 - US); **B29C 64/386** (2017.07 - EP US); **B29C 64/393** (2017.07 - US); **B33Y 10/00** (2014.12 - EP US); **B33Y 50/00** (2014.12 - EP US); **B33Y 80/00** (2014.12 - EP US); **G05B 19/4099** (2013.01 - US); **B33Y 50/02** (2014.12 - US); **G05B 2219/35134** (2013.01 - US); **G05B 2219/49007** (2013.01 - US)

Citation (applicant)

- US 6776614 B2 20040817 - WIECHMANN DIRK [DE], et al
- US RE35169 E 19960305 - LEMCHEN MARC S [US], et al
- US 5447432 A 19950905 - ANDREIKO CRAIG A [US], et al
- US 5431562 A 19950711 - ANDREIKO CRAIG A [US], et al
- US 5454717 A 19951003 - ANDREIKO CRAIG A [US], et al
- US 6739869 B1 20040525 - TAUB ELDAD [IL], et al
- US 7354268 B2 20080408 - RABY RICHARD E [US], et al
- US 2008096151 A1 20080424 - CINADER JR DAVID K [US], et al
- US 7210929 B2 20070501 - RABY RICHARD E [US], et al
- US 2006024637 A1 20060202 - RABY RICHARD E [US], et al
- US 2007238064 A1 20071011 - STARK NICHOLAS A [US], et al
- US 5340656 A 19940823 - SACHS EMANUEL M [US], et al
- US 5490882 A 19960213 - SACHS EMANUEL M [US], et al
- US 5204055 A 19930420 - SACHS EMANUEL M [US], et al
- US 5518680 A 19960521 - CIMA LINDA G [US], et al
- US 5490962 A 19960213 - CIMA LINDA G [US], et al
- US 5387380 A 19950207 - CIMA MICHAEL [US], et al
- US 5700289 A 19971223 - BREITBART ARNOLD S [US], et al
- US 4672032 A 19870609 - SLAVKIN HAROLD C [US], et al
- US 7137812 B2 20061121 - CLEARY JAMES D [US], et al
- US 7449499 B2 20081111 - CRAIG BRADLEY D [US], et al
- US 7452924 B2 20081118 - AASEN STEVEN M [US], et al
- US 2005175966 A1 20050811 - FALSAFI AFSHIN [US], et al
- US 7168950 B2 20070130 - CINADER JR DAVID K [US], et al

Citation (search report)

- [XY] US 2004229185 A1 20041118 - KNOPP PETER G [US]
- [X] US 2005233276 A1 20051020 - KOPELMAN AVI [IL], et al
- [I] DE 102007036549 A1 20080221 - ORMCO CORP [US]
- [X] JP 2001061865 A 20010313 - EHANA TERUO
- [Y] US 2006223021 A1 20061005 - CINADER DAVID K JR [US], et al
- [A] KR 20020004333 A 20020116 - KYUNG HEE MOON [KR]
- [A] US 4657508 A 19870414 - DELLINGER EUGENE L [US]
- [XP] US 2008227050 A1 20080918 - MARSHALL MICHAEL C [US]

Cited by
US11864974B2; WO2022099267A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2009158231 A1 20091230; DK 2299926 T3 20200302; EP 2299926 A1 20110330; EP 2299926 B1 20191218; EP 3649981 A1 20200513; EP 3649981 B1 20230906; JP 2011525848 A 20110929; JP 2015013196 A 20150122; JP 2017012782 A 20170119; JP 5911303 B2 20160427; JP 6005700 B2 20161012; JP 6385404 B2 20180905; US 10492889 B2 20191203; US 2011091832 A1 20110421; US 2016000529 A1 20160107; US 2016374779 A1 20161229; US 2017157861 A1 20170608; US 9763750 B2 20170919

DOCDB simple family (application)

US 2009047430 W 20090616; DK 09770765 T 20090616; EP 09770765 A 20090616; EP 19213570 A 20090616; JP 2011516441 A 20090616; JP 2014181241 A 20140905; JP 2016174609 A 20160907; US 201514820032 A 20150806; US 201615261281 A 20160909; US 201715441342 A 20170224; US 99766309 A 20090616